

### Earnings

Median annual earnings of archivists, curators, museum technicians, and conservators in 1998 were \$31,750. The middle 50 percent earned between \$23,090 and \$43,840. The lowest 10 percent earned less than \$16,340 and the highest 10 percent earned more than \$63,580. Median annual earnings of archivists, curators, museum technicians, and conservators in 1997 were \$28,400 in museums and art galleries.

Earnings of archivists and curators vary considerably by type and size of employer, and often by specialty. Average salaries in the Federal Government, for example, are usually higher than those in religious organizations. Salaries of curators in large, well-funded museums can be several times higher than those in small ones.

The average annual salary for all museum curators in the Federal Government in nonsupervisory, supervisory, and managerial positions was about \$59,200 in 1999. Archivists averaged \$57,500; museum specialists and technicians, \$40,400; and archives technicians, \$40,000.

### Related Occupations

The skills that archivists, curators, museum technicians, and conservators use in preserving, organizing, and displaying objects or information of historical interest are shared by anthropologists, arborists, archaeologists, botanists, ethnologists, folklorists, genealogists, historians, horticulturists, information specialists, librarians, paintings restorers, records managers, and zoologists.

### Sources of Additional Information

For information on archivists and on schools offering courses in archival studies, contact:

☛ Society of American Archivists, 527 South Wells St., 5<sup>th</sup> floor, Chicago, IL 60607-3922. Internet: <http://www.archivists.org>

For general information about careers as a curator and schools offering courses in museum studies, contact:

☛ American Association of Museums, 1575 I St. NW., Suite 400, Washington, DC 20005. Internet: <http://www.aam-us.org>

For information about conservation and preservation careers and education programs, contact:

☛ American Institute for Conservation of Historic and Artistic Works, 1717 K St. NW., Suite 301, Washington, DC 20006.

Internet: <http://palimpsest.stanford.edu/aic>

## College and University Faculty

(O\*NET 31202, 31204, 31206, 31209, 31210, 31212, 31114, 31216, 31218, 31222, 31224, 31226, and 31299)

### Significant Points

- A Ph.D. is usually required for full-time, tenure-track positions in 4-year colleges and universities.
- Applicants for full-time college faculty positions should expect to face keen competition.
- Job prospects will continue to be better in certain fields—computer science, engineering, and business, for example—that offer attractive nonacademic job opportunities and attract fewer applicants for academic positions.

### Nature of the Work

College and university faculty teach and advise nearly 15 million full- and part-time college students and perform a significant part of our Nation's research. Faculty also keep up with developments in their field and consult with government, business, nonprofit, and community organizations.

Faculty usually are organized into departments or divisions, based on subject or field. They usually teach several different courses—algebra, calculus, and statistics, for example. They may instruct undergraduate or graduate students, or both. College and university faculty may give lectures to several hundred students in large halls, lead small seminars, or supervise students in laboratories. They prepare lectures, exercises, and laboratory experiments; grade exams and papers; and advise and work with students individually. In universities, they also supervise graduate students' teaching and research. College faculty work with an increasingly varied student population made up of growing shares of part-time, older, and culturally and racially diverse students.

Faculty keep abreast of developments in their field by reading current literature, talking with colleagues, and participating in professional conferences. They also do their own research to expand knowledge in their field. They perform experiments; collect and analyze data; and examine original documents, literature, and other source material. From this process, they arrive at conclusions, and publish their findings in scholarly journals, books, and electronic media.

College and university faculty increasingly use technology in all areas of their work. In the classroom, they may use computers—including the Internet; electronic mail; software programs, such as statistical packages; and CD-ROMs—as teaching aids. Some faculty use closed-circuit and cable television, satellite broadcasts, and video, audio, and Internet teleconferencing to teach courses to students at remote sites. Faculty post course content, class notes, class schedules, and other information on the Internet. They also use computers to do research, participate in discussion groups, or publicize professional research papers. Faculty will use these technologies more as quality and affordability improve.

Most faculty members serve on academic or administrative committees that deal with the policies of their institution, departmental matters, academic issues, curricula, budgets, equipment purchases, and hiring. Some work with student and community organizations. Department chairpersons are faculty members who usually teach some courses but usually have heavier administrative responsibilities.

The proportion of time spent on research, teaching, administrative, and other duties varies by individual circumstance and type of institution. Faculty members at universities normally spend a significant part of their time doing research; those in 4-year colleges, somewhat less; and those in 2-year colleges, relatively little. The teaching load, however, often is heavier in 2-year colleges and somewhat lower at 4-year institutions. Full professors at all types of institutions usually spend a larger portion of their time conducting research than assistant professors, instructors, and lecturers.



*College and university faculty teach, conduct research, and write scholarly papers.*

### Working Conditions

College faculty usually have flexible schedules. They must be present for classes, usually 12 to 16 hours per week, and for faculty and committee meetings. Most establish regular office hours for student consultations, usually 3 to 6 hours per week. Otherwise, faculty are free to decide when and where they will work, and how much time to devote to course preparation, grading, study, research, graduate student supervision, and other activities.

Initial adjustment to these responsibilities can be challenging as new faculty adapt to switching roles from student to teacher. This adjustment may be even more difficult should class sizes grow in response to faculty and budget cutbacks, increasing an instructor's workload. Also, many institutions are increasing their reliance on part-time faculty, who usually have limited administrative and student advising duties, which leaves the declining number of full-time faculty with a heavier workload. To ease the transition from student to teacher, some institutions offer career development programs.

Some faculty members work staggered hours and teach night and weekend classes. This is particularly true for faculty who teach at 2-year community colleges or institutions with large enrollments of older students with full-time jobs or family responsibilities. Most colleges and universities require faculty to work 9 months of the year, which allows them the time to teach additional courses, do research, travel, or pursue nonacademic interests during the summer and school holidays. Colleges and universities usually have funds to support faculty research or other professional development needs, including travel to conferences and research sites.

Faculty may experience a conflict between their responsibilities to teach students and the pressure to do research and to publish their findings. This may be a particular problem for young faculty seeking advancement in 4-year research universities. However, increasing emphasis on undergraduate teaching performance in tenure decisions may alleviate some of this pressure.

Part-time faculty usually spend little time on campus, because they do not have an office. In addition, they may teach at more than one college, requiring travel between places of employment, earning the name "gypsy faculty." Part-time faculty are usually not eligible for tenure. For those seeking full-time employment in academia, dealing with this lack of job security can be stressful.

### Employment

College and university faculty held about 865,000 jobs in 1998, mostly in public institutions.

About 3 out of 10 college and university faculty worked part time in 1998. Some part-timers, known as "adjunct faculty," have primary jobs outside of academia—in government, private industry, or in nonprofit research—and teach "on the side." Others prefer to work part-time hours or seek full-time jobs but are unable to obtain them due to intense competition for available openings. Some work part time in more than one institution. Many adjunct faculty are not qualified for tenure-track positions because they lack a doctoral degree.

### Training, Other Qualifications, and Advancement

Most college and university faculty are in four academic ranks: Professor, associate professor, assistant professor, and instructor. These positions are usually considered to be tenure-track positions. A small number of faculty, called lecturers, usually are not on the tenure track.

Most faculty members are hired as instructors or assistant professors. Four-year colleges and universities usually consider doctoral degree holders for full-time, tenure-track positions, but may hire master's degree holders or doctoral candidates for certain disciplines, such as the arts, or for part-time and temporary jobs. In 2-year colleges, master's degree holders fill most full-time positions. However, with increasing competition for available jobs, institutions can be more selective in their hiring practices. Master's

degree holders may find it increasingly difficult to obtain employment as they are passed over in favor of candidates holding a Ph.D.

Doctoral programs, including time spent completing a master's degree and a dissertation, take an average of 6 to 8 years of full-time study beyond the bachelor's degree. Some programs, such as the humanities, take longer to complete; others, such as engineering, usually are shorter. Candidates specialize in a subfield of a discipline—for example, organic chemistry, counseling psychology, or European history—but also take courses covering the entire discipline. Programs include 20 or more increasingly specialized courses and seminars plus comprehensive examinations on all major areas of the field. Candidates also must complete a dissertation—a written report on original research in the candidate's major field of study. The dissertation sets forth an original hypothesis or proposes a model and tests it. Students in the natural sciences and engineering usually do laboratory work; in the humanities, they study original documents and other published material. The dissertation, done under the guidance of one or more faculty advisors, usually takes 1 or 2 years of full-time work.

In some fields, particularly the natural sciences, some students spend an additional 2 years on postdoctoral research and study before taking a faculty position. Some Ph.D.'s extend or take new postdoctoral appointments if they are unable to find a faculty job. Most of these appointments offer a nominal salary.

A major step in the traditional academic career is attaining tenure. New tenure-track faculty are usually hired as instructors or assistant professors, and must serve a certain period (usually 7 years) under term contracts. At the end of the contract period, their record of teaching, research, and overall contribution to the institution is reviewed; tenure is granted if the review is favorable. According to the American Association of University Professors, in 1998-99 about 65 percent of all full-time faculty held tenure, and about 86 percent were in tenure-track positions. Those denied tenure usually must leave the institution. Tenured professors cannot be fired without just cause and due process. Tenure protects the faculty's academic freedom—the ability to teach and conduct research without fear of being fired for advocating unpopular ideas. It also gives both faculty and institutions the stability needed for effective research and teaching, and provides financial security for faculty. Some institutions have adopted post-tenure review policies to encourage ongoing evaluation of tenured faculty.

The number of tenure-track positions is expected to decline as institutions seek flexibility in dealing with financial matters and changing student interests. Institutions will rely more heavily on limited term contracts and part-time faculty, shrinking the total pool of tenured faculty. Some institutions offer limited term contracts to prospective faculty—typically 2-, 3-, or 5-year, full-time contracts. These contracts may be terminated or extended at the end of the period. Institutions are not obligated to grant tenure to these contract holders. In addition, some institutions have limited the percentage of faculty who can be tenured.

Some faculty—based on teaching experience, research, publication, and service on campus committees and task forces—move into administrative and managerial positions, such as departmental chairperson, dean, and president. At 4-year institutions, such advancement requires a doctoral degree. At 2-year colleges, a doctorate is helpful but not usually required, except for advancement to some top administrative positions. (Deans and departmental chairpersons are covered in the *Handbook* statement on education administrators, while college presidents are included in the *Handbook* statement on general managers and top executives.)

College faculty should have inquiring and analytical minds, and a strong desire to pursue and disseminate knowledge. They must be able to communicate clearly and logically, both orally and in writing. They should be able to establish rapport with students and, as models for them, be dedicated to the principles of academic integrity and intellectual honesty. Additionally, they

must be self-motivated and able to work in an environment where they receive little direct supervision.

### Job Outlook

Employment of college and university faculty is expected to increase faster than the average for all occupations through 2008 as enrollments in higher education increase. Many additional openings will arise as faculty members retire. Nevertheless, prospective job applicants should expect to face competition, particularly for full-time, tenure-track positions at 4-year institutions.

Between 1998 and 2008, the traditional college-age (18-24) population will grow again after several years of decline. This population increase, along with a higher proportion of 18- to 24-year-olds attending college and a growing number of part-time, female, minority, and older students, will spur college enrollments. Enrollment is projected to rise from 14.6 million in 1998 to 16.1 million in 2008, an increase of about 10 percent (see the accompanying chart).

Growing numbers of students will necessitate hiring more faculty to teach. At the same time, many faculty will be retiring, opening up even more positions. Also, the number of doctor's degrees is expected to grow more slowly than in the past, somewhat easing the competition for some faculty positions.

Despite expected job growth and the need to replace retiring faculty, many in the academic community are concerned that institutions will increasingly favor the hiring of adjunct faculty over full-time, tenure-track faculty. For many years, keen competition for faculty jobs forced some applicants to accept part-time academic appointments that offered little hope of tenure, and others to seek nonacademic positions. Many colleges, faced with reduced State funding for higher education and growing numbers of part-time and older students, increased the hiring of part-time faculty to save money on pay and benefits and to accommodate the needs of nontraditional-age students. If funding remains tight over the projection period, this trend of hiring adjunct or part-time faculty is likely to continue. Because of uncertainty about future funding sources, some colleges and universities are also controlling costs by changing the mix of academic programs offered, eliminating some programs altogether, and increasing class size.

Even if the proportion of full-time positions does not shrink, job competition will remain keen for coveted tenure-track jobs. Some institutions are expected to increasingly hire full-time faculty on limited-term contracts, reducing the number of tenure-track positions

available. Overall, job prospects will continue to be better in certain fields—business, engineering, health science, and computer science, for example—that offer attractive nonacademic job opportunities and attract fewer applicants for academic positions. Also, excellent job prospects in a field—for example, computer science—result in higher student enrollments, increasing faculty needs in that field. On the other hand, poor job prospects in a field, such as history in recent years, discourages students and reduces demand for faculty.

### Earnings

Median annual earnings of college and university faculty in 1998 were \$46,630. The middle 50 percent earned between \$33,390 and \$71,360. The lowest 10 percent earned less than \$23,100; the highest 10 percent, more than \$90,360.

Earnings vary according to faculty rank and type of institution, geographic area, and field. According to a 1998-99 survey by the American Association of University Professors, salaries for full-time faculty averaged \$56,300. By rank, the average for professors was \$72,700; associate professors, \$53,200; assistant professors, \$43,800; instructors, \$33,400; and lecturers, \$37,200. Faculty in 4-year institutions earn higher salaries, on the average, than those in 2-year schools. Average salaries for faculty in public institutions—\$55,900—were lower in 1998-99 than those for private independent institutions—\$63,500—but higher than those for religiously-affiliated private colleges and universities—\$49,400. In fields with high-paying nonacademic alternatives—notably medicine and law but also engineering and business, among others—earnings exceed these averages. In others—such as the humanities and education—they are lower.

Most faculty members have significant earnings in addition to their base salary, from consulting, teaching additional courses, researching, writing for publication, or other employment.

Most college and university faculty enjoy some unique benefits, including access to campus facilities, tuition waivers for dependents, housing and travel allowances, and paid sabbatical leaves. Part-time faculty usually have fewer benefits, including health insurance, retirement benefits, and sabbatical leave, than full-time faculty.

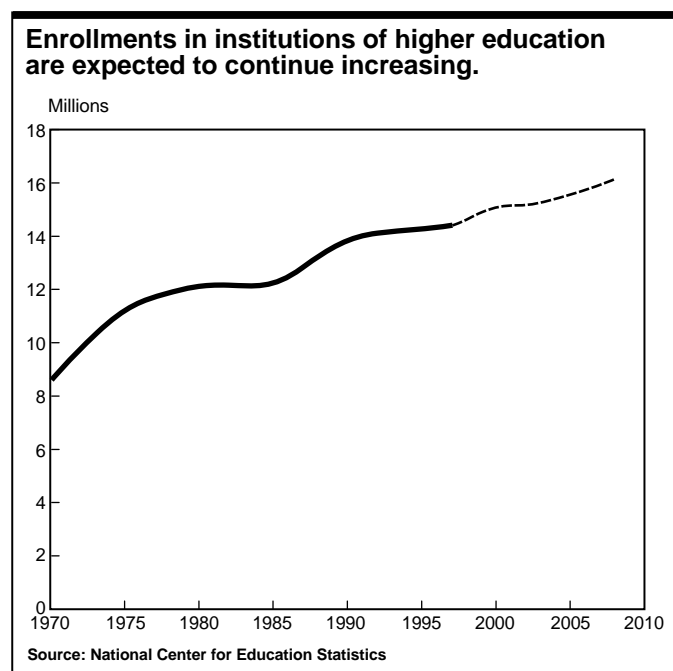
### Related Occupations

College and university faculty function both as teachers and as researchers. They communicate information and ideas. Related occupations include elementary and secondary school teachers, librarians, writers, consultants, lobbyists, trainers and employee development specialists, and policy analysts. Faculty research activities often are similar to those of scientists, as well as managers and administrators in industry, government, and nonprofit research organizations.

### Sources of Additional Information

Professional societies generally provide information on academic and nonacademic employment opportunities in their fields. Names and addresses of these societies appear in statements elsewhere in the *Handbook*.

Special publications on higher education, available in libraries, such as *The Chronicle of Higher Education*, list specific employment opportunities for faculty.



## Counselors

(O\*NET 31514)

### Significant Points

- About 6 out of 10 counselors have a master's degree.
- Most States require some form of counselor credentialing, licensure, certification, or registry for practice outside schools; all States require school counselors to hold a State school counseling certification.